What is claimed is:

1. A holographic recording apparatus comprising:

means for generating a reference beam and a signal beam;

a mask for modulating the signal beam with data to generate a modulated signal beam; and

a hologram medium for storing an interference pattern between the reference beam and the modulated signal beam,

wherein the mask has a first and a second opaque film and a transparent plate inserted therebetween, the first and the second opaque film facing each other,

the first and the second opaque film have a first and a second recording track group, respectively, and

the first and the second recording track group have a plurality of first and second recording tracks, respectively, the first and the second recording tracks being alternately arranged, wherein the data to modulate the signal beam therewith are alternately embedded along the first and the second recording tracks such that one of two neighboring recording tracks is one of the first recording tracks and the other is one of the second recording tracks.

2. The holographic recording apparatus of claim 1, wherein the data are embedded in a shape of a series of slits along the first and the second recording tracks.

3. The holographic recording apparatus of claim 1, wherein the first and the second recording tracks are formed in overall of a spiral-like structure.

4. The holographic recording apparatus of claim 1, wherein the first and the second tracks are substantially formed of circles which are concentric with each other.

5. The holographic recording apparatus of claim 1, wherein the first and the second opaque film have a first and a second opening track group for transmitting the signal beam and the modulated signal beam without changing optical properties thereof, respectively, the first recording track group facing the second opening track group while the second recording track group facing the first opening track group.

6. The holographic recording apparatus of claim 5, wherein an opening width of each opening track of the first and the second opening track group is larger than that of each recording track of the first and the second recording track group.

7. The holographic recording apparatus of claim 6, wherein an opening width W_2 of said each opening track satisfies a following relation:

$$W_2 \geq W_1 + 2t\tan\theta$$

wherein W_1 is a recording track width of said each recording track, t is a separation between the first recording track group and the second opening track group or between the first opening track group and the second recording track group and θ is a diffraction angle of the signal beam or the modulated signal beam.

8. The holographic recording apparatus of claim 1, wherein the reference beam and the signal beam have a same wavelength and a same polarization.

9. The holographic recording apparatus of claim 1, wherein the reference beam and the modulated signal beam are projected on the hologram medium and an angle between the reference beam and the modulated signal beam is constant.

10. A holographic reconstructing apparatus comprising:

a hologram medium for storing therein an interference pattern between a reference beam and a modulated signal beam, wherein the modulated signal beam is generated by modulating a signal beam with a mask, wherein the mask has a first and a second opaque film and a transparent plate inserted therebetween, the first and the second opaque film facing each other, the first and the second opaque film have a first and a second recording track group, respectively, and

the first and the second recording track group have a plurality of first and second recording tracks, respectively, the first and the second recording tracks being alternately arranged, wherein the data to modulate the signal beam therewith are embedded along the first and the second recording tracks;

means for generating a reconstructing beam corresponding to the reference beam, wherein the reconstructing beam is illuminated on the hologram medium to reconstruct the modulated signal beam as a reconstructed signal beam;

means for detecting from the reconstructed signal beam two beam intensities corresponding to one of the first recording tracks of the first recording track group and one of the second recording tracks of the second recording track group, respectively, which are alternately arranged and adjacent to each other;

means for comparing the two beam intensities with each other to generate a focusing servo signal; and

means for moving the detecting means based on the focusing servo signal to control a detecting position of the detecting means.

11. The holographic reconstructing apparatus of claim 10, wherein the detecting means is movable until the two beam intensities are substantially equal.

12. The holographic reconstructing apparatus of claim 10, wherein the reconstructing beam is a complex conjugate of the reference beam.

13. The holographic reconstructing apparatus of claim 10, wherein the detecting means includes:

means for converging the reconstructed signal beam;

a pinhole plate having two pinholes, wherein two pinholes are used to separate from the converged reconstructed signal beam two adjacent beams corresponding to said one of the first recording tracks and said one of the second recording tracks which are alternately arranged and adjacent to each other; and

means for sensing the two beam intensities of the two adjacent beams, respectively.

14. The holographic reconstructing apparatus of claim 13, wherein the sensing means has:

means for converging the two adjacent beams; and

two detectors for detecting the two beam intensities of the two adjacent beams, respectively.

15. A mask for modulating a signal beam with data to generate a modulated signal beam in a holographic recording apparatus which includes a hologram medium for storing an

interference pattern between a reference beam and the modulated signal beam, the mask comprising:

a first and a second opaque film and a transparent plate inserted therebetween, the first and the second opaque film facing each other,

wherein the first and the second opaque film have a first and a second recording track group, respectively, and

the first and the second recording track group have a plurality of first and second recording tracks, respectively, the first and the second recording tracks being alternately arranged, wherein the data to modulate the signal beam therewith are alternately embedded along the first and the second recording tracks such that one of two neighboring recording tracks is one of the first recording tracks and the other is one of the second recording tracks.

16. The mask of claim 15, wherein the data are embedded in a shape of a series of slits along the first and the second recording tracks.

17. The mask of claim 15, wherein each of the first and the second recording tracks is formed in overall of a spiral-like structure.

18. The mask of claim 15, wherein the first and the second tracks are substantially of circles which are concentric

with each other.

19. The mask of claim 15, wherein the first and the second opaque film have a first and a second opening track group for transmitting the signal beam and the modulated signal beam without changing optical properties thereof, respectively, and the first recording track group facing the second opening track group while the second recording track group facing the first opening track group.

20. The mask of claim 19, wherein an opening width of each opening track of the first and the second opening track group is larger than that of each recording track of the first and the second recording track group.

21. The mask of claim 20, wherein an opening width W_2 of said each opening track satisfies a following equation:

$$W_2 \geq W_1 + 2t\tan\theta$$

wherein W_1 is a recording track width of said each recording track, t is a separation between the first recording track group and the second opening track group or between the first opening track group and the second recording track group and θ is a diffraction angle of the signal beam or the modulated signal beam.